5-2018

The Role of Self-Worth in the Development, Expression, and Recovery of Disordered Eating, Including Food Addiction

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A Thesis/Capstone

Submitted in Partial Fulfillment for Graduation with Honors Distinction and the Degree of Bachelor of Psychology

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RECEIVED BY THE UNIVERSITY THESIS/CAPSTONE PROJECT COMMITTEE ON:

May 5, 2018

Acknowledgements

First and foremost, I want to thank Dr. Molly Jameson, without whom this thesis would not be what it is today. Thank you for putting so much time & energy into helping me make this passion project a reality, and for being such an incredible mentor within the field of Psychology. Your guidance has been a blessing in all aspects of my life!

Thank you to my family for their unwavering support in all of my academic pursuits: Thank you, Dad, for pushing me to achieve my best; Thank you, Mom, for always believing me, even in times when I faltered; Thank you, Brooklyn, for continuously being a voice of encouragement whilst also keeping me humble. I could not have asked for a better sister and friend.
Grandpa Buhre, thank you for developing and engaging my intellect in those challenging, oftentimes irksome conversations growing up, as it has now allowed me to reap the benefits as a critical thinker and perspective taker.

Thank you to the first Psychology professor I had, Dr. Kristy Dykema, for cultivating my love of Psychology throughout all our talks during your office hours each week in my first year at UNC. Dr. Karlin, thank you for noticing my potential, for providing me an opportunity to excel, and for boosting my confidence in my own ability to make a real difference in this field. That is something I could never repay, so again, thank you!

Thank you to my educators, family members, and friends both near & far who have had such an incredible impact in shaping the person that I am today and empowering me in becoming the person I wish to be.

Finally, thank you to the readers, for supporting my work, continuing the conversation, and embracing the vulnerability around this incredibly important, and relevant, subject area.

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Abstract

Disordered eating behaviors are defined as obsessive actions surrounding a person's eating patterns, body shape, and weight (National Institute of Mental Health) and impacts an estimated 21.5 million people (American Addiction Centers) in the United States. Food addiction is a phenomenon closely tied with disordered eating behaviors (Russell, 2013), where little research has examined the role of intrapsychological factors, particularly self-worth, in both the development of food addictive behaviors and the efficacy of treatment. Current research evaluates the role of self-esteem in individuals with food addiction, however studies have found it as a less accurate portrayal of the self-concept due to the fluctuation and subjective nature of its evaluation (Neff & Vonk, 2009) with calls for a more comprehensive state of measurement (Hunter, Jason, & Keys, 2013).

The purpose of the current study is to close the gap in our knowledge regarding the role that self-worth plays in both the development and treatment of disordered eating behaviors as it relates to food addiction. Five female participants, all with diagnosed disordered eating behaviors, were recruited through the National Eating Disorder online research forum. They completed online measures including a demographic questionnaire; a structured interview with open-ended items asking about their perceptions of the causes of their disordered eating behavior, their therapy history and perceptions of success, and their beliefs in the role of their self-worth in their disordered eating and treatment. Analysis of interview results reveal several consistent themes: the disordered eating behavior was a body-directed form of self-punishment in response to social influences, and self-worth was seen by participants as being positively correlated to their recovery success. Participants' emotional states before, during, and after engaging in disordered eating patterns were found to be related to particular needs that the disordered eating behaviors were fulfilling. These results can inform the field of the importance of self-worth in the development of disordered eating behaviors as well as in the recovery of these behaviors.

Introduction

Food is meant to be a source of sustenance to fuel our bodies in order to function. However, food today has been developed well past the typical fruit and vegetable groups to include a wide variety of ingredients. This development of what we eat has complicated the reason as to why we eat. Food has become not only a means to satiate our hunger, but also as a tool to manipulate how we feel. For example, this can be seen either through increasing energy for a short while from sugar or numbing sensations through carb-loading. For some individuals, their approach to food as something other than sustenance and as a means of emotional or psychological fulfillment can become excessive and cause problems with their daily functioning. In instances such as these, individuals are engaging in disordered eating behavior, where an individual "does not have a healthy relationship with food and body… characteristics that overlap a medically diagnosed eating disorder… (but) do not warrant a diagnosis of a specific eating disorder" (Gitimu et al., 2016, pp. 5). Disordered eating behavior can include a variety of behaviors from food restriction to overindulgence, but of particular interest is food addiction. Food addiction, a dependence upon and manipulation of food that has an impact on how one feels, is an especially prevalent topic in the United States with the current obesity epidemic. Addictions in general have been heavily researched with the focus on the neurological reasons for the behavior; however, there is a need to look beyond biological science to also include psychological components of food addiction. Research in eating disorders has examined the self-concept, specifically self-esteem, but there is a need to explore more specific psychological constructs of the self, particularly self-worth. The current research aims to close the gap in the literature on disordered

eating behaviors and self-worth by examining the role of this little studied construct in the development, expression, and treatment for recovery of disordered eating behavior, as well as exploring individuals' perceptions of other factors that contributed to their disordered eating behavior and treatment success.

Purpose

This study will seek to answer the following question: What is the role of self-worth in the development, expression, and treatment for recovery of disordered eating behaviors? Very little research has examined self-worth in disordered eating behavior, so this research seeks to add to the knowledge of this psychological construct in disordered eating, specifically in treatment success.

Researcher's Perspective

Food has always served as a source of comfort in my family, so it was only natural that I develop that same relationship with food. Outside of learning about the food pyramid in elementary school, I didn't give much thought to the foods that I was consuming and how those affected my body. I distinctly remember being pulled aside by a teacher in the school and being warned that consuming pizza at lunch on a daily basis would negatively impact my figure in the future. Although she might have meant well, this interaction marked the beginning of my struggle with food as it related to my body. This struggle continued on up until high school, where I remained highly aware of the different types of food and how they would impact my body in various ways, oftentimes engaging in negative self-talk about food choices and bullying myself into opting for less appetizing food options in order to quiet that negative voice. When I did eat fattening or high-carbohydrate foods, I would then enter this vicious cycle of shaming myself for

making myself fat, and then feeling despair at feeling fat, and then consuming more in order to comfort myself as a result of the pain I had caused. Engaging in these behaviors became an escape from the disappointment in myself, despite simultaneously evoking further disappointment in myself each time I did so.

By this time, my doctor had determined that my body was not able to process gluten, wheat, dairy, and corn derivatives properly, and therefore was required to cut them out of my diet. I was successful for a quite a while, until I was faced with a triggering experience, similar to what Khantzian and Albanese (2008) reference, that led me to cope with those same foods I was instructed not to consume. This began an excessive consumption pattern in a response to heightened stressors that left me riddled with guilt, shame, and fear at bringing on the disappointment of others. It was not until four years after the development of my own food addictive behaviors that I read Glennon Doyle Melton's book *Love Warrior,* which talks of her struggle with many addictive behaviors, one of which was in relation to food through bulimia. This woman did a tremendous amount of work, something I was working through myself, in order to overcome her addictive behaviors and regain control of her life. Hearing of another's struggles with a self-destructive and oftentimes secretive behavior struck a chord within me and inspired me to shed a light on this topic and hopefully provide encouragement to others out there that there is still hope for recovery.

Review of Literature

This review of the literature aims to fill the gap in the literature by looking at intrapsychological components to address the relationship between the self-concept, specifically self-worth and the aspects that compose self-worth, and overcoming food

addictive behaviors by defining what addiction is, how it relates to eating disorders, and how this impacts quality of life. A connection between specifically food addictions and self-worth will be assessed with an evaluation of the role that self-compassion can play in overcoming the addictive behaviors. The literature often refers to these addictive behaviors around food as 'disordered eating behaviors,' as this term encompasses food addiction and other forms of behaviors surrounding the manipulation of food throughout this study. The findings from this analysis will be applied to a research study intended to uncover the relationship between overcoming food addiction and perceived self-worth. This information will contribute to the existing research that focuses on the motivating factors that contribute to overcoming addictive behavior. The resulting research will be applied to better understand how to assist individuals with distorted relationships and views of food.

Persistence of Addiction

According to Noggle (2016), addiction is more of a compulsion than choice, which helps to explain the reason self-destructive behaviors occur. He says that the reason for persistence of craving and addictive behaviors is the depletion of willpower to fight against the compulsion. The repeated act of engaging in self-destructive behaviors is speculated to occur through a lack of quashing a dangerous behavior (Noggle, 2016). This research therefore suggests that addiction is not necessarily a controlled choice that the individual is making, but more of an option that the individual cannot help choosing. Noggle (2016) added to the study done by Robinson & Berridge (1993) that expanded on how addiction works by arguing that different brain circuits, which respond differently to chronic drug use, mediate motivation and pleasure. Chronic drug use sensitizes the

motivational system, thus increasing the motivation to consume. By contrast, the chronic drug use habituates the hedonic system, thus decreasing the amount of pleasure that drug consumption produces. There is a distinction between seeking after a source of reward of one's own accord and having an impulse to indulge in a reward that may or may not bring a sense of pleasure; the latter issue is what defines addiction.

The typical sources of addiction vary in any form of substance abuse or activity, and people across all age groups exhibit addictive behaviors. Looking at food addiction in the elderly, Murray, Kroll, and Avena (2015) found that it is possible to have a legitimate dependence upon certain foods, specifically those that contain sugar or high fructose corn syrup. This dependency falls in line with the definition of a substance use disorder due to participants exhibiting symptoms such as craving and withdrawal, similar to that of a drug addiction. The findings from Schulte, Grillo, and Gearhardt (2016) support Murray et al. (2015) concerning what motivates the behaviors, which then classifies as an addiction through the behaviors of dependence that were exhibited around food. There was a theme of loss of control established, as well as continued use despite negative repercussions of those actions. The qualitative nature of the study by Schulte et al. (2016) was an attempt to capture the most honest picture of what participants went through by reporting on firsthand experiences.

Addressing the 'what' about addiction and how it works allows for the evaluation of the 'why' and 'how' next. Committing the addictive behaviors is not the entirety of the individual's goal; another motivation is the after-effect of the behavior in order to provide a sense of relief to the participant, largely due to a repression of emotions or past traumatic events they wish to suppress (Khantzian & Albanese 2008). Khantzian and

Albanese (2008) identified a correlation between the specific choice of substance and the underlying issues that the participant was trying to avoid, and what part(s) of the brain structure it activates. One could then hypothesize a parallel correlation concerning food, similar to that of drug choice, that implies issues that one is still dealing with, and how exactly one chooses to use food (to binge or deprive, etc.).

Defining the Self-Concept

Self-concept is defined as "how participants view their own attitudes, values, goals, body concept, personal worth, and abilities" (VandenBos, 2015, p. 953). While related to self-esteem, the two constructs are different. The *APA Dictionary of Psychology* (VandenBos, 2015) defines self-esteem as reflecting "a person's physical self-image, view of his or her accomplishments and capabilities, and values and perceived success in living up to them, as well as the ways in which others view and respond to that person" (p. 955) which is a subjective measure of the self-concept in any given moment. This measurement determines that the more positive the cumulative perception of these qualities and characteristics are, the higher one's self-esteem becomes as well. Self-compassion is another aspect that relates to the self-concept, and it has been suggested that "if self criticism can lead to negative emotions, self-compassion may promote well-being by protecting one from the negative emotional implications of one's perceived failings" (VandenBos, 2015, p. 953). Although self-compassion is not a subcategory of the self-concept, it does incorporate the perspective with which the individual's self-concept is viewed; it can be a supplemental measure to inquire as to whether or not there is a correlation between having self-compassion and having a positive view of the self-concept. Self-worth, defined as "an individual's evaluation of

himself or herself as a valuable, capable human being deserving of respect and consideration. Positive feelings of self-worth tend to be associated with a high degree of self-acceptance and self-esteem" includes many of these aspects regarding the self-concept (VandenBos, 2015, p. 959). The main focus of this study is to use self-worth as a more solid subcategory measurement of the value of one's self-concept as a whole.

Self-Worth & Addiction

A number of research articles point out the connection between individuals' feelings of self-worth and their addictive behaviors. For instance, Sariyska et al. (2014) suggests that a correlation exists between low self-esteem and Internet addiction among various cultures. Other researchers have shown similar correlations between self-esteem and misuse of stimulants, which can lead to addiction (Giodarno et al., 2015), and this study pointed out the importance of self-worth and self-esteem, stating "the differences in contingencies of self-worth indicate that the source of students' self-esteem may influence their behavior regarding prescription stimulant medication" (Giodarno et al. 2015, pp. 362).

Russell's (2013) in-depth research on women illustrates the impacts that eating disorders have on one's well-being, including self-worth. Russell (2013) confirms that food addictive behaviors are not purely derived from explicit pressures such as body image, but that lack of self-worth is also a major contributor since "eating disorders and issues around self-worth, control, mood management, sense of purpose, change, loss, grief and dissatisfaction emerged most strongly with self-worth and control way out ahead of the rest" (Russell, 2013, p. 581). This research also indicates a distinction between general eating disordered behavior and specific food addiction, with general

eating disordered behavior encompassing food addictive behaviors. Russell (2013) suggests that behaviors surrounding food can range from deprivation to overindulgence. Typically, these behaviors can lead to feeling an absence of control and can trigger compensatory behaviors, which "could refer equally well to compensating for a poor sense of self worth through not being what one wants to be or covets in others" (pp. 581-582). Russell's definition of an eating disorder does not conflict with the qualities of a food addiction, and therefore the destructive behaviors that compose an eating disorder can also be considered a food addiction.

Morgan and O'Brien (2016) deliver more insight into why people engage in destructive behaviors in the first place as an intrinsic motivation to get away from ourselves and to shake off any expectations that the individual may find constricting or overwhelming. The interviews conducted within their study identify the feeling of escape that drives behavior, supporting the claims of previous studies as well due to the similar themes of expectations set for the individual and the impact those expectations have on them. These themes reinforce the lack of self-worth as something people might try to run away from (2016).

The Role of Self-Worth in Overcoming Food Addiction

Since addiction has been classified as similar to an illness, an addict will never cease to be an addict. However, the focus here lies primarily on ceasing to engage in the addictive or controlling behaviors. Knauer (2002) identifies the self-sabotaging circle of food addictive behaviors while also identifying potential ways to break the cycle, such as introducing an intervention during the phase of low self-esteem after engaging in the addictive behavior. A major factor of fear as well as shame and disgust at oneself was

present when focusing on the change of behavior surrounding self-worth. Healthy outlets were stressed as a necessary tool to circumvent behaviors of self-sabotage. This research additionally solidified the connection between food addictive behaviors and self-worth. Hunter, Jason, and Keys (2013) look at the factors of empowerment in a population of women who are recovering from substance abuse. Self-esteem is identified as a strong factor in maintaining an empowered state. Hunter et al. (2013) indicate the strength of measuring self-esteem as a variable of the self-concept and calls for the need to retest for other factors of empowerment, as evaluating self-worth is a promising factor that can determine how prevalent of a role it plays in the act of overcoming addiction.

Baker (2008) introduces self-forgiveness as another key element of the self-concept in relation to overcoming addiction. Baker (2008) defines self-forgiveness as "the internal process of releasing resentment, loathing, and negative reproach toward the self by compassionately choosing to regard the self as a fallible but remorseful human being, capable of change, committed to personal growth, and worthy of forgiveness" (p. 63). Baker highlights the importance of compassion in the process of forgiveness. Baker's own experiences further attests to the results of the study which led to the conclusion that "many clients with alcohol and substance abuse problems… often hold on to deep-seated, very personal, unresolved issues that seemed rooted in shame and guilt and that these have often resulted in self-loathing" (Baker, 2008, p. 67). Baker believes that the pursuit of self-forgiveness through reevaluating oneself is critical in reaching and maintaining sobriety (Baker 2008). This juxtaposition of self-loathing and self-compassion leads the reader to infer that self-loathing is the absence of self-compassion, and that increasing

self-compassion would lead to a decrease in self-loathing and therefore can lead to decreases in the addictive behaviors in turn.

Self-Compassion

Self-compassion is researched further by Rodrigues (2014), who identifies patterns of overcoming addictions in coping with the reported shame and guilt through self-forgiveness, which led to overcoming addiction and a more constructive and intentional set of behaviors being demonstrated in place of the addictive ones. Rodrigues (2014) found that self-compassion as it relates to self-forgiveness had decreased critical views towards oneself whenever self-compassion was present. Specifically, the findings suggest self-compassion is an element that can lead to self-healing, and this first step towards healing can create the practice of self-forgiveness, a necessary component of "reducing self-hatred and becoming more open to experiencing self-love" (Rodrigues 2014, p. 37). These findings demonstrate the effective role that self-compassion, as a part of implementing positive practices of self-worth, can play in breaking the cycle of addictive and self-destructive behaviors towards a more healthy outlet of self-acceptance.

Self-Esteem No Longer an Effective Measurement

Self-esteem was determined through the earlier studies to be a widely used measurement in an individual's evaluation of their self-concept. However, many sources now call for the development of a more dependable, stable measurement concerning the self. Neff and Vonk (2009) suggest that self-compassion predicts more stable feelings of self-worth than self-esteem and is less determined by particular outcomes. Self-esteem was actually positively associated with narcissism, suggesting that self-compassion may be a more useful alternative than self-esteem in qualifying for a valid assessment (Neff &

Vonk 2009). Neff and Vonk (2009) uncover the need for a more encompassing measurement of the self-concept past self-esteem, especially because self-esteem could be an unrealistic representation of one's self-concept, which has been a growing gap in the research. Neff and Vonk have found that "self-esteem stability refers to day-to-day changes in feelings of self-worth, as opposed to trait levels of global self-worth, which tend to remain relatively constant over time" (2014, p. 25). They refute self-esteem as providing a less accurate portrayal of the self-concept due to the fluctuation and subjective nature of its evaluation. As a result of the growing gap in research and call for a change in measurement, my research will hopefully determine if self-worth, especially when displayed with self-compassion, is more effective of a measure of oneself surrounding addictive behaviors.

Self-Compassion & Self-Worth

Looking deeper into this concept of self-compassion, Neff (2012) shares that he has found self-compassion to be made up of self-kindness, common humanity, and mindfulness. There is a clarification of the difference between self-compassion and self-esteem (Neff, 2012) that is necessary to mention in order to further the research in this area. Neff (2012) views self-compassion as a skill that can be learned, applied, and practiced in one's own life. There was a negative correlation found between self-compassion and depression, anxiety, stress, and the impact of trauma from the workshops that were conducted surrounding it. Critically evaluating self-esteem and recognizing the stubborn aspect of continuing in addictive behaviors despite contradicting information may be a defensive mechanism (Neff 2012), which leads towards the measurement of self-worth instead.

Neff, Kirkpatrick, and Rude (2007) confirmed that self-compassion, more than simply self-esteem, was a consistent contributing factor in reaching a steady level of psychological health, stating that increasing self-compassion helps individuals to escape the harmful consequences of harsh self-judgment, where this can promote psychological resilience (Neff et al. 2007). Neff and colleagues (2007) support the idea of self-compassion becoming a healthy alternative behavior that can potentially help promote and maintain recovery, therefore providing a greater chance of overcoming the addictive behaviors.

Purpose and Research Questions

Based on the above information, it is apparent that how an individual views their worthiness is related to their addictive behaviors, yet little research has examined this construct in disordered eating behaviors. Therefore, the current study seeks to better understand the role of self-worth in disordered eating behaviors through a qualitative study with women who have undergone treatment for general or specific eating disorders. The research is approached with the following guiding questions:

1. To what main factors do our participants attribute the development of their disordered eating behaviors?
2. What emotions do our participants select and use to describe their state before, during, and after engaging in disordered eating behaviors?
3. Do our participants view self-worth as an important factor to the development, expression, and/or recovery of their disordered eating behaviors?

Methods

Project Design

This study took a raw data collection approach with participants that volunteered to share their stories. The research was conducted through a qualitative design via a semi-structured interview.

Participants

Three participants were recruited through the *National Eating Disorder Association (NEDA)* website at www.nationaleatingdisorders.org/forum. All three had been diagnosed by a clinician as having anorexia and self-reported having sought treatment for their diagnosis. Additional demographic information is available in the Results narrative.

Measures

Interview questions were developed in coordination with the *Sociocultural Attitudes Towards Appearance Questionnaire* (Heinberg, Thompson, & Stormer, 1995). Questions primarily pertained to previous disordered eating behavior, the impact of self-worth, and perceptions of their disordered eating behavior and treatment. A doctoral-level clinical psychologist reviewed the questions and provided feedback in order to maximize specificity in communicating and avoid triggering participants as much as possible. See Appendix A for the Sociocultural Attitudes Towards Appearance Questionnaire.

Procedures

The qualitative interview protocol developed by the researcher was submitted into a forum within the NEDA website for a two-week duration upon receiving IRB approval (see Appendix C). Individuals who elected to participate in the study clicked on the link

that brought them to Qualtrics, where they completed an informed consent and demographic questionnaire before continuing on to the self-worth interview protocol, all which took approximately 30 minutes to complete. The topics within this interview protocol included self-reported levels of self-worth in relation to disordered eating behaviors around food, inquiries as to the emotions experienced before, during, and after engaging in disordered eating, the motivations behind engaging in such actions, and the possible outside influences that drove the individual towards those behaviors. Questions were presented in a variety of formats, including forced choice and open-ended responses. See Appendix B for the full interview items.

Data Analysis Procedures

The broad data analytic approach was a thematic analysis of interview responses based on the Strategic Analysis Response Approach (SARA; Steichen, 1996). This iterative approach involves multiple researchers reviewing interview responses for the gist of information, discussing the gist, returning to the interview responses for a more thorough examination, discussing the more thorough examination, returning to the interview responses to identify themes, discussing the themes, returning to the interview responses to identify quotes that exemplify the themes, and discussing the quotes. Both the researcher and the research advisor completed the SARA process, discussing each step before moving on to the next.

Data Handling

The identities of the participants remained undisclosed to the researcher throughout the entirety of the study and were subsequently assigned an identification

number from which to identify responses. The responses of the participants were kept within Qualtrics where only the researcher and research advisor could access.

Results

Data analysis revealed the following main themes: feeling lonely and the subsequent need for comfort; feelings of shame were connected with the urge to punish themselves; disgust as potential reflection of their current levels of self-worth; a need to feel in-control; (hoping to) feel numb as an element of avoidance; and feeling hopelessness while engaging in disordered eating behavior in their ability to change their current state of emotional being, To better elucidate the themes, descriptions of each participant and their expression of the themes are included below.

Participant Narratives

Participant 1 is a lower-middle class 21 year-old multiracial woman and college student. Her disordered eating behaviors around food began as a result of being bullied in middle school and ultimately escalated with a sexual partner telling her she needed to lose weight in order to be with him. This directed her attention to the bodies of other women, where she began comparing body types and paying attention to the media's depiction of women's bodies. She took this unhappiness and focused it on her goal of obtaining a "body that would make [her] happy," one that was flat and toned via the use of laxatives, consuming high-metabolic foods, and cutting out whole food groups, reporting her intentions as seeking control and punishing herself. This struggle continued for eight years before she sought and successfully completed treatment.

Participant 2 is a white 23-year old middle-class female Graduate student. Her upbringing had a strong contribution to her struggles with food, as her family also had an

obsession with weight and health that they passed on to her. She cites an expectation of perfection that was placed upon her, one she adopted for herself, with many detrimental repercussions to her bodily and mental health. With the combination of family pressures, a move to a new school, and established negative thought patterns, she began restricting her caloric intake, exercising excessively, regularly checking her body in front of the mirror and engaging in self-destructive thinking. This continued for eight years. She reports dealing with body image and having low self-confidence during that time, where her disordered eating behaviors served as a sense of escape, to provide her with the sense of control, a sense of 'high,' and a means to punish herself. Her behaviors were also reinforced by interactions with and comments from her peers as well as the images she viewed on social media. She only sought treatment at the end of that time at the behest of her parents, but has been successful in having overcome those food addictive behaviors since.

Participant 3 is a 27-year old white female living in the working class with high school as her highest level of education completed. Her struggle has continued on for 15+ years, beginning with her experiences as a child. She describes herself as growing up chubby, watching her mom struggle anorexia herself, and a family who bullied the participant about her weight. Her family actually enforced calorie counting on her at six-years old. This morphed her ideals to focus on "thin is in" at all costs, which in turn developed her need for an element of control, becoming addicted to counting calories. She consumed fruits and vegetables and stayed away from alcohol or any foods high in carbohydrates or sugars. These behaviors served to engage her need for control, provide a sense of 'high' and comfort, and a way to punish herself. It wasn't until it affected those

outside of herself, like her sexual encounters with her husband decreasing and her kids complaining about her body being too bony whilst cuddling, that she finally decided to try and take action about overcoming her food addictive behaviors. Responding to the negative elements that others brought up allowed herself to finally acknowledge the toll this had been having on her health, such as feelings of exhaustion and what she referred to as "sad skin." However, she shares that she is not able to afford or does not have access to treatment options, and has reported of sometimes still engaging in her food addictive behaviors. She has chosen to be open about her struggles regardless of this obstacle, by sharing her struggle on Facebook, where she has found a support system.

General Themes from Data Analysis

Results indicate that family and media played a strong role in the development of the food addictive behaviors collectively across all participants, while the reasons behind them were quite different. The behaviors in particular were determined to be a body-directed form of self-punishment in response to social influences. There was a common thread of emotional upheaval and negative social environmental forces that contributed in the development of these behaviors, most specifically regarding people whose opinions mattered to the participants drawing negative attention to the participants' bodies. Social support was cited to be an important factor in recovery, where all participants indicated self-worth as a factor. This social support was seen as either efforts to decrease a negative response, such as what Participant 3 had experienced in regards to her family's complaints, or with the encouragement of trusted members of their inner social circle promising the positives in the outcome. This allure of overcoming their current struggles brought with it a heightened sense of self-worth and personal importance in order to

complete, which the data supports with a subsequent positive correlation in self-worth levels as efforts to overcome their food addictive behaviors increased.

When asked to describe their state of self-worth before engaging in their disordered eating patterns, the collective responses of participants indicate a consistent lack of work on their own self-worth levels, with an undertone of treating this as unimportant. One participant even went so far as to feel numb about it, having a lack of awareness, where the other two participants held an awareness of their low levels of self-worth, but did not deploy any constructive efforts to alter it. Upon the next question concerning the state of self-worth in the process of engaging in disordered eating patterns, the data showed that the act of engaging itself brought about an awareness to the low feelings of self-worth and an acknowledgement of its existence. Two participants desperately tried to avoid confronting their state of self-worth, experiencing hopelessness and subsequently trying to search for temporary ways to make themselves feel better again, with the other participant hoping not to feel anything at all. When asked to describe their state of self-worth after engaging in their disordered eating patterns, two stated them to be "*very* low," with one participant going so far as to state they felt as if they were "broken." It became clear that active work concerning their self-worth did not occur until they began receiving treatment for the food addictive behaviors.

Emotional Themes from Data Analysis

Within the surveys distributed, the researchers identified six emotions or states of being that were recurring either prior to, during, or after engaging in the disordered eating pattern. Some quotes may be included from the qualitative responses recorded. 'N' refers to how many times it was mentioned, for a total of 9 possibilities.

1. *Loneliness (n = 6)*

All three participants mentioned experiencing this feeling both before and after engaging in behaviors regarding anorexia. The researchers speculate that these feelings emerged as a result of the participants' desire to seek comfort, as well as distancing themselves from the people around them. This element of secrecy itself could have had a very strong toll on their feelings of connectedness and worth as it relates to the people around them. This could also attest to the level of disconnect within the participants themselves. Participant 3 specifically stated her attempts to distance herself from her family, in order to preserve and protect her growing levels of self-worth. This distancing also happened between Participant 1 and her friends in middle school, and was only alluded to in regards to the relationship between Participant 2 and her family.

2. *Shame (n = 5)*

Participants experienced feelings of shame both before and after engaging in their disordered eating behaviors. Participant 1 described these feelings arising as it pertained to her body not fitting into the mold of those that were shown in the media. It is assumed that those feelings of shame decreased upon the realization of the lack of cultural representation in the media and the different body types that were much more common than the media portrayed. This is when she experienced a shift in her desire to become stronger and healthier. The researchers speculate that the feelings of shame are connected with the urge to punish themselves, and with the decrease in self-punishing behaviors could have possibly brought about a decrease in feelings of shame.

3. *Disgust (n = 3)*

Participants mentioned feeling disgust only before engaging in their disordered eating behaviors. There is not much data to explain the reasons for these feelings, however the researchers interpret this to mean that it was an unconscious recognition of what little self-worth they did have, and was a response to the actions that the participants would be engaging in.

4. In control (n = 2)

Participants indicated feelings of being 'in control' in the moments of participating in their food addictions. It was described as an outlet in which they could have a say, a reaction from the unpredictable and difficult events they had undergone or were currently experiencing. One participant was recorded saying:

" It felt good. I couldn't control my feelings, but I could control what I ate."

She attributes her connection between controlling food in relation to her feelings to an experience with her grandmother at ten years old, when she was told to suck in her gut because she looked pregnant.

5. Numbness (n = 2)

Participants mentioned this feeling while they were engaging in their disordered eating behaviors, where one participant said they were hoping not to feel anything. The researchers speculate that this is an element of avoidance and an attempt to minimize the intensity of the other feelings they were experiencing as a sort of mute, per say. This provided the participants with a momentary sense of escape, but soon left the participants to face their harsh realities, which could contribute to the feelings of shame and loneliness they experienced afterwards as well. These findings support the research of

Morgan and O'Brien (2016) concerning the engagement in these food addictive behaviors as a means of escape.

6. Hopelessness (n = 2)

Two participants reported experiencing feelings of hopelessness while engaging in their disordered eating behaviors, both searching for ways to change and 'fix' this feeling, choosing to run away from it instead of sitting with it. The researchers speculate that this brought them to the search of that 'high' feeling. This feeling of hopelessness can relate to Participant 3 and her lack of control concerning following in her mother's footsteps, as well as Participant 2's continued struggle to uphold and maintain the expectation of perfection for both herself and her family.

Discussion

The purpose of this study was to assess the relationship between self-worth and overcoming food addictive behaviors with an intrapsychological perspective. Data indicate there is a relationship between feelings of self-worth and overcoming disordered eating behaviors, with a connection being drawn between the emotional states and needs of the participants before, during, or after engaging in disordered eating behaviors. The current literature suggests that food addiction can be classified as an addiction where both physiological and neurological responses occur as a result (Noggle, 2016), which has been seen to positively correlate with self-esteem (Sariyska et al., 2014; Giodarno et al., 2015), but this study bridged the gap in addressing the nature of the relationship concerning the food component of addiction and the import of self-worth in recovery. The results indicated that a feeling of self-worth was related to overcoming the food addictive behaviors, with the motives behind those behaviors identified as body-directed

forms of self-punishment in response to social environmental factors, filling the self-reported reasons behind engaging in the behaviors with the temporary payoff they would receive each time. Both the literature and results infer the useful nature of self-worth as a measure, providing a more encompassing assessment of the self-concept that self-esteem failed to provide. The researcher hypothesizes that the subsequent increase in levels of self-worth after ceasing to engage in disordered eating behaviors was a result of the participant receiving much needed attention towards one's own mental health. The participants all demonstrated varying levels of negative self-talk adopted from an outside source and ruminated upon those degrading thoughts. The researcher hypothesizes that the reinforcement of those negative thoughts had a corresponding impact upon the individual's state of mind and levels of self-worth. These low levels of self-worth provided an opportunity for the disordered eating to take root as an outlet in response to their current state, especially considering the negative thoughts heavily dwelt upon body image as well. Just as Khantzian and Albanese (2008) spoke of an individual's drug of choice being a reflection of what they wished to avoid, it could be inferred from the research of an individual's disordered eating pattern being in response to their needs (i.e. deprivation and control; overconsumption and comfort; etc.). Upon deciding to invest in oneself, the levels of self-worth likely increased as a result of paying attention to and accommodating their needs, and to meet those emotional needs in ways other than food-related. This personal reflection could have allowed the individual to confront those very issues that had been fueling their negative self-talk, providing the individual with a mindset that perceived themselves as valuable and worth the effort to treat themselves right and let go of prior experiences that plagued their thoughts. There is a need to

replicate this study to verify if these speculations are indeed correct. This research shows the complexity of disordered eating behavior, and adds to our knowledge of biological and environmental influences via an intrapsychological approach.

Limitations within this study include the low number of participants, only recording one gender perspective, gaining information from only those that have dealt with anorexia opposed to varying degrees of the behaviors. Distributing the interview protocol online led to limitations in the information that was collected, as there were no opportunities to clarify responses or ask follow up questions. As a result, it is difficult to infer some of the reasoning behind responses and we were unable to ask for participants to elaborate on a specific statement to gain clarity. For example, 'disgust' was identified as an emotional theme from participants' responses, yet there was uncertainty if that disgust was directed outwards to other individuals, or inwards to them, something left undetermined without being able to ask for further information.

Recommendations for continuing research include expanding gender inclusiveness in the participant pool to identify if there are any gender differences in regards to overall feelings of self-worth as they relate to destructive behaviors around food. Also, more active recruitment strategies of participants should be pursued in order to gain more diverse perspectives, especially when combined with a mixed methods approach. There is a need to replicate this study and further develop the survey in order to establish reliability of both the results as well as the validity of the variable measurements. It is recommended that this qualitative method be paired with a quantitative method to provide more elements of measuring the levels of self-worth in participants. Further research should be conducted regarding the differing elements

within the self-concept in order to identify a stable variable, such as self-compassion, self-forgiveness, etc. Replicated studies should include participants with both overconsumption in their food addictive behaviors as well as the under-consumption measured here. There is a cross-cultural representation found within the literature, yet Sariyska et al. (2014) demonstrates that there is still a need in including the perspectives on self-worth and food addiction outside of the United States. It would be recommended to compare results cross-culturally to assess if similar trends are exhibited and review the data concerning what factors are most present within addicts in recovery, hopefully providing an opportunity to circumvent those issues before they arise in other individuals whilst also educating those currently struggling.

Appendix A

Sociocultural Attitudes Towards Appearance Questionnaire – 4

Directions: Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Disagree = 1

Mostly Disagree = 2

Neither Agree Nor Disagree = 3

Mostly Agree = 4

Definitely Agree = 5

1. It is important for me to look athletic.

2. I think a lot about looking muscular.

3. I want my body to look very thin.

4. I want my body to look like it has little fat.

5. I think a lot about looking thin.

6. I spend a lot of time doing things to look more athletic.

7. I think a lot about looking athletic.

8. I want my body to look very lean.

9. I think a lot about having very little body fat.

10. I spend a lot of time doing things to look more muscular.

Answer the following questions with relevance to your Family (include: parents, brothers, sisters, relatives):

11. I feel pressure from family members to look thinner.

12. I feel pressure from family members to improve my appearance.

13. Family members encourage me to decrease my level of body fat.

14. Family members encourage me to get in better shape.

Answer the following questions with relevance to your Peers (include: close friends, classmates, other social contacts):

15. My peers encourage me to get thinner.

16. I feel pressure from my peers to improve my appearance.

17. I feel pressure from my peers to look in better shape.

18. I get pressure from my peers to decrease my level of body fat.

Answer the following questions with relevance to the Media (include: television, magazines, the Internet, movies, billboards, and advertisements):

19. I feel pressure from the media to look in better shape.

20. I feel pressure from the media to look thinner.

21. I feel pressure from the media to improve my appearance.

22. I feel pressure from the media to decrease my level of body fat.

Note: SATAQ-4 Scoring:

Internalization – Thin/Low body fat: 3, 4, 5, 8, 9

Internalization – Muscular/Athletic: 1, 2, 6, 7, 10

Pressures – Family: 11, 12, 13, 14

Pressures – Peers: 15, 16, 17, 18

Pressures – Media: 19, 20, 21, 22

Appendix B

Demographics Questionnaire

Please answer the following questions about yourself.

1. How old are you? _____

2. How tall do you think you are? (in feet and inches) _____

3. How much do you think you weigh? (in pounds) _____

4. Are you currently seeking medical or psychological treatment for a disordered eating behavior? Yes or No
    a. Have you been diagnosed with an eating disorder? Yes or No
    b. What eating disorder have you been diagnosed with?
        i. Anorexia Nervosa
        ii. Binge Eating Disorder
        iii. Bulimia Nervosa
        iv. Other: _____
    c. Do you still engage in your disordered eating behavior? Yes or No
        i. On a scale from 1-7, how frequently do you engage in your disordered eating behavior today (1= not at all, 2= almost never, 3= rarely, 4= sometimes, 5= occasionally, 6= often, 7=frequently)? _____

5. What gender identity do you align with? (circle one) Male Female Transgender Gender Fluid Other

6. What sexual orientation do you identify with? (circle one) Heterosexual Queer Bisexual Pansexual Asexual Other

7. What is your race/ethnicity? (circle one)

    White Black Latinx Asian Bi/Multiracial

    Native American Other: _____

8. Did you consider yourself to have grown up in low-income or poverty? Yes No
    a. If no, do you think your family was:
        i. Middle Class or Upper Class

9. Are you currently living in poverty, making $6,300 or less per person in your household? Yes No

10. What is your highest level of education received? Elementary Middle school High school GED Associate's degree Bachelor's degree Master's degree Doctoral degree

11. Are you a college student? Yes No
    a. If yes, what year in school are you? Freshman Sophomore Junior Senior Graduate student

12. Where do you receive most of your food from?
    Dining Hall Fast food restaurants Dine-in restaurants
    Grocery store Food pantry Shelter
    Parents Friends Other

Interview Protocol

1. What disordered or problematic eating behavior do you identify with most?
    a. Anorexia Nervosa
        i. Please describe what food you consume as a result of your disordered eating behavior, including the types, patterns, and amounts of food as well.
    b. Bulimia Nervosa
        i. Please describe what food you consume as a result of your disordered eating behavior, including the types, patterns, and amounts of food as well.
    c. Binge Eating Disorder
        i. Please describe what food you consume as a result of your disordered eating behavior, including the types, patterns, and amounts of food as well.
    d. Other Specified Feeding or Eating Disorder
        i. Please describe what food you consume as a result of your disordered eating behavior, including the types, patterns, and amounts of food as well.

2. How many years have you dealt with your disordered eating? If your symptoms have fluctuated over the years, when did they first begin?

3. Have you sought treatment from a medical doctor specifically for your disordered eating behaviors? Yes or No

4. Have you sought treatment from a mental health specialist specifically for your disordered eating behaviors? Yes or No

5. Have you sought treatment from a psychologist specifically for your disordered eating behaviors? Yes or No
    a. Are you currently in treatment specifically for your disordered eating behaviors? Yes or No
    b. Do you still regularly engage in the disordered eating behaviors you sought treatment for? Yes or No

6. While there are a number of factors that can contribute to the development of disordered eating behaviors, what do you think were the strongest contributions to your developing these behaviors? Please provide at least 2-3 sentences.

7. Why do you believe you were drawn to food opposed to other addictive/compulsive outlets? Please provide 2-3 sentences.

8. Do you think there were life situations that contributed to triggering the first time you engaged in your disordered eating behavior? Please provide at least 2-3 sentences.
    a. Why did you continue to engage in the disordered eating behavior after the first time?

9. What factors were present in your decision to seek treatment for your disordered eating behaviors? Please provide at least 2-3 sentences.

10. What emotions do you experience PRIOR to engaging in disordered eating behaviors?
    a. Guilt, depression, shame, anticipation, sadness, despair, need for control, loss of control, in control, fear, hunger, anxiety, anger, loneliness, tiredness, happiness, resentment, numbness, hopelessness, disgust, excitement, other…
    b. We are particularly interested in how a person's self-worth may be related to their disordered eating behaviors. For the purposes of this study, we define self-worth as "an individual's evaluation of himself or herself as a valuable, capable human being deserving of respect and consideration. Positive feelings of self-worth tend to be associated with a high degree of self-acceptance and self-esteem" (APA Dictionary of Psychology, 2015).
    c. Based on the previous definition of self-worth, do you believe that your self-worth either impacted, or was impacted by, your disordered eating behavior? Yes or No
        i. How would you describe your self-worth prior to engaging in your disordered eating behavior? Please provide 2-3 sentences…

11. What emotions do you experience DURING your engagement in disordered eating behaviors?

a. Guilt, depression, shame, anticipation, sadness, despair, need for control, loss of control, in control, fear, hunger, anxiety, anger, loneliness, tiredness, happiness, resentment, numbness, hopelessness, disgust, excitement, other…
b. We are particularly interested in how a person's self-worth is related to their disordered eating behaviors. For the purposes of this study, we define self-worth as "an individual's evaluation of himself or herself as a valuable, capable human being deserving of respect and consideration. Positive feelings of self-worth tend to be associated with a high degree of self-acceptance and self-esteem" (APA Dictionary of Psychology, 2015).
c. Based on the previous definition of self-worth, do you believe that your self-worth either impacted, or was impacted by, your disordered eating behavior? Yes or No
    i. How would you describe your self-worth while engaging in your disordered eating behavior? Please provide 2-3 sentences…

12. What emotions do you experience AFTER engaging in disordered eating behaviors?
    a. Guilt, depression, shame, anticipation, sadness, despair, need for control, loss of control, in control, fear, hunger, anxiety, anger, loneliness, tiredness, happiness, resentment, numbness, hopelessness, disgust, excitement, other…
    b. We are particularly interested in how a person's self-worth is related to their disordered eating behaviors. For the purposes of this study, we define self-worth as "an individual's evaluation of himself or herself as a valuable, capable human being deserving of respect and consideration. Positive feelings of self-worth tend to be associated with a high degree of self-acceptance and self-esteem" (APA Dictionary of Psychology, 2015).
    c. Based on the previous definition of self-worth, do you believe that your self-worth either impacted, or was impacted by, your disordered eating behavior? Yes or No
        i. How would you describe your self-worth after engaging in your disordered eating behavior? Please provide 2-3 sentences…

13. What is/are your goal(s) from engaging in these behaviors?
    a. Numb
    b. Forget
    c. Dull pain
    d. To escape
        i. To escape what? _____
    e. To seek control
    f. To lose control

g. Seeking a 'high'
h. For comfort
i. To punish
    i. To punish who?
        1. Self?
        2. Other?
j. Other: _____

14. Do you believe that the media (e.g. magazines, television shows, Facebook, etc.) influenced your disordered eating behaviors in any way? Yes or No
    a. Please provide 2-3 sentences describing how the media influenced you.

15. Do you believe that your social circles (e.g., friends or colleagues) influenced your disordered eating behaviors in any way? Yes or No
    a. Please provide 2-3 sentences describing how your social circles influenced you.

16. Do you believe that your family influenced your disordered eating behaviors in any way? Yes or No
    a. Please provide 2-3 sentences describing how your family influenced you.

17. Were there any other people or places that prompted you to engage in these disordered eating behaviors from? Yes or No
    a. Please provide 2-3 sentences describing who/where you learned these behaviors.

18. What resources were helpful in treating, or seeking treatment for, your disordered eating behaviors?
    a. EX: Social support, counseling, willpower, etc.

19. What resources were not helpful in treating, or seeking treatment for, your disordered eating behaviors?

Appendix C

IRB Narrative

Institutional Review Board

UNIVERSITY OF NORTHERN COLORADO

DATE: October 3, 2017

TO: Madison Buhre
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1085969-3] The relationship between food addiction and self-worth SUBMISSION TYPE: Amendment/Modification

ACTION:
APPROVED APPROVAL DATE
October 2, 2017
EXPIRATION DATE: October 2, 2018
REVIEW TYPE: Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via
a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of October 2, 2018.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

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